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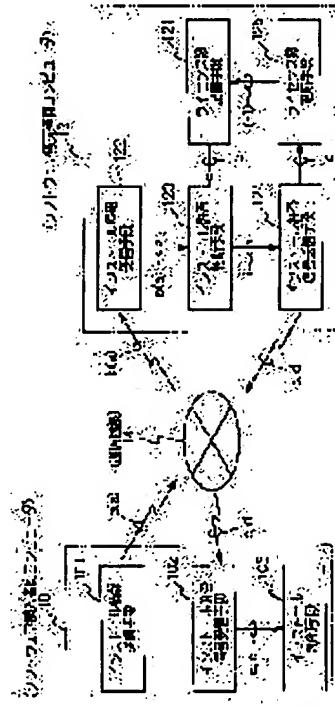
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(54) SOFTWARE LICENSE MANAGING SYSTEM AND RECORDING MEDIUM WITH SOFTWARE LICENSE MANAGING PROGRAM RECORDED THEREON

(57)Abstract:

PROBLEM TO BE SOLVED: To surely prevent software exceeding the number of licenses from being installed.

SOLUTION: At the time of installing software written in a recording medium by a software purchasing side computer 10, installing information (b) is transmitted to a computer 12 on the side of a software seller to perform installing only when the computer 12 permits it.



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DETAILED DESCRIPTION

[Detailed Description of the Invention]**[0001]**

[Field of the Invention] This invention relates to the record medium which recorded the software license managerial system and software license manager for managing the number of licenses through a communication line about the software written in and sold to CD-ROM etc.

[0002]

[Description of the Prior Art] The software used with current and a personal computer (henceforth "PC") is mainly written in and sold to CD-ROM. And license management of this software is left to independent management of a software purchaser.

[0003]

[Problem(s) to be Solved by the Invention] However, since a software vendor cannot manage a software purchaser's number of installs, install of the software which exceeded the number of licenses poses a problem. Since the record media of software are read-only memories, such as CD-ROM, this is because the installed number of licenses is not manageable with the record medium itself. Moreover, even if it uses the record medium which can be written in, the same problem may arise by what the number management domain of licenses of the record medium is illegally rewritten for (the so-called "protection ****").

[0004]

[Objects of the Invention] Then, the purpose of this invention is to offer the software license managerial system which can prevent certainly install of the software which exceeded the number of licenses, and the record medium which recorded the software license manager.

[0005]

[Means for Solving the Problem] The software license managerial system concerning this invention consists of a communication line which connects these with a software purchaser side computer and a software vendor side computer. A software purchaser means the corporation or individual who purchased the software written in CD-ROM etc. A software vendor means the corporation or individual who needs to do license management of software, such as a a software developer. A communication line means the Internet.

[0006] When installing in a software purchaser side computer the software written in a record medium, an install information transmitting means transmit the install information containing the specific number of a record medium through a communication line, an install permission-or-denial signal receiving means receive an install enabling signal or an install disapproval signal through a communication line, and the install control means that are based on the install enabling signal or the install disapproval signal which received with the install permission-or-denial signal receiving means, and perform or stop in install are established. The record media with which software was written in are read-only memories, such as CD-ROM, DVD-ROM, and Semi-conductor ROM.

[0007] A number storage means of licenses by which the number of licenses is memorized for every specific number of a record medium to the software vendor side computer, An install information

receiving means to receive install information through a communication line, An install permission-or-denial decision means to judge whether the corresponding number of licenses is read from the number storage means of licenses, and install is permitted about the specific number of the record medium received with the install information receiving means, An install permission-or-denial signal transmitting means to transmit an install enabling signal or an install disapproval signal through a communication line based on the decision result in an install permission-or-denial decision means, When an install enabling signal is transmitted from an install permission-or-denial signal transmitting means, a renewal means of the number of licenses to update the number of licenses memorized by the number storage means of licenses is established.

[0008] Next, an operation of the software license managerial system concerning this invention is explained.

[0009] In a software purchaser side computer, when installing the software written in the record medium, the install information in which an install information transmitting means contains the specific number of a record medium is transmitted through a communication line.

[0010] Then, by software vendor side computer, an install information receiving means receives the install information through a communication line. Then, an install permission-or-denial decision means judges whether about the specific number of the received record medium, the corresponding number of licenses is read from the number storage means of licenses, and install is permitted. For example, install is not permitted, if the number of licenses remains, install is permitted and the number of licenses does not remain. Then, an install permission-or-denial signal transmitting means transmits an install enabling signal or an install disapproval signal through a communication line. If an install enabling signal is transmitted at this time, the renewal means of the number of licenses will update the number of licenses memorized by the number storage means of licenses. For example, only '1' reduces the number of licenses.

[0011] In a software purchaser side computer, an install permission-or-denial signal receiving means receives an install enabling signal or an install disapproval signal through a communication line again. Then, an install control means will perform install, if an install enabling signal is received, and if an install disapproval signal is received, it will stop install.

[0012] Only when install information is transmitted to a software vendor side computer whenever it installed software by software purchaser side computer, and a software vendor side computer grants a permission, even if it is a read-only record medium by performing install, install which exceeded the number of licenses cannot be performed. Moreover, since it is not necessary to establish the number management domain of licenses in the record medium even if it is the record medium which can be written in, illegal rewriting of the part does not take place, either.

[0013] Moreover, an install information transmitting means, the number storage means of licenses, and an install permission-or-denial decision means may be transposed to the following. An install information transmitting means transmits the install information containing the specific number of a record medium, and the specific number of a software purchaser side computer through a communication line. The number storage means of licenses has memorized the number of licenses for every specific number of a software purchaser side computer for every specific number of a record medium. An install permission-or-denial decision means judges whether about the specific number of the record medium received with the install information receiving means, and the specific number of a software purchaser side computer, the corresponding number of licenses is read from the number storage means of licenses, and install is permitted.

[0014] In this case, license management can be performed for two or more software purchaser side computers of every to one record medium. For example, to one record medium, install is permitted to a certain software purchaser side computer, and install is not permitted to a certain software purchaser side computer.

[0015] The record medium which recorded the software license manager concerning this invention is a record medium which recorded the software license manager for operating a software purchaser side computer and a software vendor side computer as each means of the software license managerial system

concerning this invention and in which computer reading is possible. The record medium which recorded this software license manager is CD-ROM etc. Moreover, you may also write the software license manager for operating a software purchaser side computer in a record medium with software as an installer which installs software.

[0016]

[Embodiment of the Invention] Drawing 1 is the functional block diagram showing 1 operation gestalt of the software license managerial system concerning this invention. Hereafter, it explains based on this drawing.

[0017] The software license managerial system of this operation gestalt consists of a communication line 14 which connects these with the software purchaser side computer 10 and the software vender side computer 12.

[0018] To the software purchaser side computer 10 When installing the software written in the record medium (not shown) An install information transmitting means 101 to transmit the install information b containing the specific number a of a record medium through a communication line 14, An install permission-or-denial signal receiving means 102 to receive the install enabling signal c or the install disapproval signal d through a communication line 14, The install control means 103 which is based on the install enabling signal c received with the install permission-or-denial signal receiving means 102 or the install disapproval signal d, and performs or stops install is established.

[0019] To the software vender side computer 12 A number storage means 121 of licenses by which the number e of licenses is memorized to every [of a record medium] specific number a, An install information receiving means 122 to receive the install information b through a communication line 14, About the specific number a of the record medium received with the install information receiving means 122 An install permission-or-denial decision means 123 to judge whether the corresponding number e of licenses is read from the number storage means 121 of licenses, and install is permitted, An install permission-or-denial signal transmitting means 124 to transmit the install enabling signal c or the install disapproval signal d through a communication line 14 based on the decision result f in the install permission-or-denial decision means 123, When the install enabling signal c is transmitted from the install permission-or-denial signal transmitting means 124, a renewal means 125 of the number of licenses to update the number e of licenses memorized by the number storage means 121 of licenses is established.

[0020] Drawing 2 is a flow chart which shows the actuation in the software license managerial system of drawing 1 , drawing 2 [1] is actuation of a software purchaser side computer, and drawing 2 [2] is actuation of a software vender side computer. Hereafter, it explains based on drawing 1 and drawing 2 .

[0021] First, a software purchaser is going to install in the software purchaser side computer 10 the software written in the record medium. At this time, the install information transmitting means 101 transmits the install information b containing the specific number a of a record medium through a communication line 14 (step 201).

[0022] Then, by software vender side computer 12, the install information receiving means 122 receives the install information b through a communication line 14 (step 211). Then, the install permission-or-denial decision means 123 judges whether about the specific number a of the received record medium, the corresponding number e of licenses is read from the number storage means 121 of licenses (step 212), and install is permitted. For example, install is not permitted, if the number e of licenses remains, install is permitted and the number e of licenses does not remain (step 213). Then, if install is permitted by the install permission-or-denial decision means 123, the install permission-or-denial signal transmitting means 124 will transmit the install enabling signal c (step 214), and the renewal means 125 of the number of licenses will update the number e of licenses memorized by the number storage means 121 of licenses. For example, only '1' reduces the number e of licenses (step 215). On the other hand, if install is not permitted by the install permission-or-denial decision means 123, as for the install permission-or-denial signal transmitting means 124, the install disapproval signal d will be transmitted (step 216).

[0023] In the software purchaser side computer 10, the install permission-or-denial signal receiving

means 102 receives the install enabling signal c or the install disapproval signal d through a communication line 14 again (step 202). Then, the install control means 103 will perform install, if the install enabling signal c is received (step 203,204), and if the install disapproval signal d is received, it will stop install (step 203).

[0024] Only when the install information b is transmitted to the software vendor side computer 12 whenever it installed software by software purchaser side computer 10 as above, and the software vendor side computer 12 grants a permission, even if it is a read-only record medium by performing install, install which exceeded the number of licenses cannot be performed. Moreover, since it is not necessary to establish the number management domain of licenses in the record medium even if it is the record medium which can be written in, illegal rewriting to the number management domain of licenses does not take place, either.

[0025]

[Example] Next, one example which materialized the above-mentioned operation gestalt more is explained. However, the name of each component in the above-mentioned operation gestalt is put in another way as the name materialized as follows.

[0026] Software purchaser side computer (each means is included) -> Specific number -> MacAddress of PC and software vendor -> software-development origin, software vendor side computer (each means is included) -> license management equipment, the communication line -> Internet, record-medium -> CD-ROM, the specific number -> CD-ROM number of a record medium, and a software purchaser side computer, an install enabling-signal -> install continuation flag, an install disapproval signal -> install continuation improper flag, and the number storage means of licenses -> database (DB).

[0027] Drawing 3 is the explanatory view showing the software license managerial system of this example. Hereafter, it explains based on this drawing.

[0028] This example offers the structure which performs license management of software using the Internet. ** . The software purchaser 30 purchases CD-ROM34 (software and license) in shop front 32 grade first. ** . Then, the software purchaser 30 transmits the information and User Information about the software and the license which were purchased by E-mail etc. to software-development former 36. Software-development former 36 registers a software quotient lot number number, a CD-ROM number, the number of available licenses, purchaser information (a purchaser name, mail address, etc.), etc. into license management equipment 38 based on those information.

[0029] ** . Here, the software purchaser 30 begins to install the software of CD-ROM34 in PC36. Then, it is in the middle of install, and install information (CD-ROM information and PC information) is transmitted to the license management equipment 38 of software-development former 36 through the Internet. A software quotient lot number number, a CD-ROM number, etc. are contained in CD-ROM information.

[0030] ** . When the transmitted CD-ROM information is not registered into license management equipment 38, transmission with mail of the software information purchased to the software purchaser 30 and license information is urged. Install is made to continue, when the software information and license information which were purchased are transmitted at this time and information is able to be registered normally. Install is stopped when not registered.

[0031] The transmitted CD-ROM information is already registered, and when the number of available licenses is one or more, information unique to PCs36, such as MacAddress, is shortly transmitted to license management equipment 38. License management equipment 38 registers transmitted PC information into license management equipment 38, after reducing the one number of available licenses of the corresponding CD-ROM information. When PC information is already registered into license management equipment 38, the number of available licenses is not changed. This means that installing in same PC36 repeatedly is possible.

[0032] On the other hand, when the number of available licenses is zero or less, PC information is not transmitted but install is stopped. In addition, when the number of available licenses is set to 0, it reports from software-development former 36 by E-mail etc. to the software purchaser 30.

[0033] If it lets the Internet pass and install information is not normally transmitted and registered

during install as above, install which exceeded the purchase license can be prevented by not continuing install.

[0034] Drawing 4 and drawing 5 are flow charts which show the actuation in the software license managerial system of this example, drawing 4 is actuation of PC and drawing 5 is actuation of license management equipment. Hereafter, it explains based on drawing 3 thru/or drawing 5.

[0035] License management equipment 38 has managed a purchaser name besides software information, such as a software quotient lot number number (number for every software), a CD-ROM number (number for every CD-ROM), and the number of available licenses, and the purchaser information of a purchaser mail address. Furthermore, the installer of CD-ROM34 is in the middle of install, and has the function to transmit automatically the information (a software quotient lot number number, CD-ROM number, etc.) which CD-ROM34 the very thing has, and information (MacAddress) original with PC36 to license management equipment 38, through the Internet.

[0036] Here, if PC36 which the software purchaser 30 has starts install by CD-ROM34 (step 220), an installer will acquire CD-ROM information automatically and will transmit to license management equipment equipment 38 (step 221). Here, a software quotient lot number number and a CD-ROM number are passed to license management equipment 38 through the Internet as CD-ROM information.

[0037] License management equipment 38 transmits an install continuation improper flag to an installer, when the CD-ROM information which corresponds from a software quotient lot number number and a CD-ROM number is retrieved (step 230,231) and CD-ROM information is not registered (step 232) (step 241). If CD-ROM information is registered (step 232), the number of available licenses of the CD-ROM information will be checked (step 233), and with [an available license] one [or more], an install continuation flag is transmitted through the Internet to an installer (step 234). When an available license is zero or less, an install continuation improper flag is transmitted to (step 233) and an installer (step 241).

[0038] Then, an installer transmits MacAddress of PC36 to license management equipment 38 as information original with PC36 (step 222,223).

[0039] If license management equipment 38 is already registered PC information, it will not change the number of available licenses, but will transmit an install continuation flag to an installer (steps 235-237,240). If it is new PC information, after reducing the one number of licenses, PC information will be registered and an install continuation flag will be transmitted to an installer (steps 237-240).

[0040] An installer will continue install, if an install continuation flag is received (step 224) (step 225). On the other hand, an installer will stop install, if an install continuation improper flag is received (step 224).

[0041] In addition, license management equipment 38 reports the message which tells that to the software purchaser 30 by E-mail, when the number of available licenses is set to 0 (step 241). This electronic mail information is managed with license management equipment 38.

[0042]

[Effect of the Invention] Since it was made to perform install only when having installed the software written in the record medium by software purchaser side computer according to this invention, and install information was transmitted to a software vender side computer and a permission was granted by software vender side computer, even if it is a read-only record medium, install which exceeded the number of licenses can be prevented.

[0043] Since it is not necessary to establish the number management domain of licenses in the record medium even if it is the record medium which can be written in, rewriting with the number management domain of licenses illegal with a natural thing can also be prevented. And since it is not necessary to prepare the number management domain of licenses, the user use field occupied to a storage can be increased.

[0044] Moreover, the number of licenses for every specific number of a software purchaser side computer is manageable for every specific number of a record medium by making the specific number of a software purchaser side computer into install information in addition to the specific number of a record medium. Therefore, install which exceeded the number of licenses can be prevented for every

software purchaser side computer.

[Translation done.]

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CLAIMS

[Claim(s)]

[Claim 1] When installing in a software purchaser side computer the software written in the record medium An install information transmitting means to transmit the install information containing the specific number of said record medium through a communication line, An install permission-or-denial signal receiving means to receive an install enabling signal or an install disapproval signal through said communication line, The install control means which is based on the install enabling signal or install disapproval signal received with this install permission-or-denial signal receiving means, and performs or stops said install is established. A number storage means of licenses by which the number of licenses is memorized for every specific number of a record medium to the software vender side computer, An install information receiving means to receive said install information through said communication line, An install permission-or-denial decision means to judge whether the corresponding number of licenses is read from said number storage means of licenses, and said install is permitted about the specific number of said record medium received with this install information receiving means, An install permission-or-denial signal transmitting means to transmit said install enabling signal or said install disapproval signal through said communication line based on the decision result in this install permission-or-denial decision means, The software license managerial system with which a renewal means of the number of licenses to update said number of licenses memorized by said number storage means of licenses when said install enabling signal is transmitted from this install permission-or-denial signal transmitting means was established.

[Claim 2] When installing in a software purchaser side computer the software written in the record medium An install information transmitting means to transmit the install information containing the specific number of said record medium, and the specific number of said software purchaser side computer through a communication line, An install permission-or-denial signal receiving means to receive an install enabling signal or an install disapproval signal through said communication line, The install control means which is based on the install enabling signal or install disapproval signal received with this install permission-or-denial signal receiving means, and performs or stops said install is established. A number storage means of licenses by which the number of licenses for every specific number of a software purchaser side computer is memorized for every specific number of a record medium to the software vender side computer, An install information receiving means to receive said install information through said communication line, About the specific number of said record medium received with this install information receiving means, and the specific number of said software purchaser side computer An install permission-or-denial decision means to judge whether the corresponding number of licenses is read from said number storage means of licenses, and said install is permitted, An install permission-or-denial signal transmitting means to transmit said install enabling signal or said install disapproval signal through said communication line based on the decision result in this install permission-or-denial decision means, The software license managerial system with which a renewal means of the number of licenses to update said number of licenses memorized by said number storage means of licenses when said install enabling signal is transmitted from this install permission-or-

denial signal transmitting means was established.

[Claim 3] Said record medium is a software license managerial system according to claim 1 or 2 which are read-only memories, such as CD-ROM, DVD-ROM, and Semi-conductor ROM.

[Claim 4] An install information transmitting means to transmit the install information containing the specific number of said record medium through a communication line when installing the software written in the record medium, An install permission-or-denial signal receiving means to receive an install enabling signal or an install disapproval signal through said communication line, And it considers as the install control means which is based on the install enabling signal or install disapproval signal received with this install permission-or-denial signal receiving means, and performs or stops said install. The first software license manager for operating a software purchaser side computer, A number storage means of licenses by which the number of licenses is memorized for every specific number of a record medium, An install information receiving means to receive said install information through said communication line, About the specific number of said record medium received with this install information receiving means An install permission-or-denial decision means to judge whether the corresponding number of licenses is read from said number storage means of licenses, and said install is permitted, An install permission-or-denial signal transmitting means to transmit said install enabling signal or said install disapproval signal through said communication line based on the decision result in this install permission-or-denial decision means, And when said install enabling signal is transmitted from this install permission-or-denial signal transmitting means The record medium which recorded the second software license manager for operating a software vendor side computer as a renewal means of the number of licenses to update said number of licenses memorized by said number storage means of licenses and in which computer reading is possible.

[Claim 5] An install information transmitting means to transmit the install information containing the specific number of said record medium, and the specific number of a software purchaser side computer through a communication line when installing the software written in the record medium, An install permission-or-denial signal receiving means to receive an install enabling signal or an install disapproval signal through said communication line, And it considers as the install control means which is based on the install enabling signal or install disapproval signal received with this install permission-or-denial signal receiving means, and performs or stops said install. The first software license manager for operating said software purchaser side computer, A number storage means of licenses by which the number of licenses for every specific number of a software purchaser side computer is memorized for every specific number of a record medium, An install information receiving means to receive said install information through said communication line, About the specific number of said record medium received with this install information receiving means, and the specific number of said software purchaser side computer An install permission-or-denial decision means to judge whether the corresponding number of licenses is read from said number storage means of licenses, and said install is permitted, An install permission-or-denial signal transmitting means to transmit said install enabling signal or said install disapproval signal through said communication line based on the decision result in this install permission-or-denial decision means, And when said install enabling signal is transmitted from this install permission-or-denial signal transmitting means The record medium which recorded the second software license manager for operating a software vendor side computer as a renewal means of the number of licenses to update said number of licenses memorized by said number storage means of licenses and in which computer reading is possible.

[Claim 6] The record medium with which said software was written in is a record medium which are read-only memories, such as CD-ROM, DVD-ROM, and Semi-conductor ROM, and which recorded the software license manager according to claim 4 or 5.

[Translation done.]